

DIGITAL NOTICEBOARD IMPLEMENTATION VIA WIRELESS COMMUNICATION

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ABSTRACT

The era of mobile technology opens the windows to the android app. The websites are disappearing and the mobile phones are prominent. It's the time to change from conventional websites and other things to apps, which has become the part of our daily routine. In the existing system GSM module is used for transmitting and receiving message, we are giving the input as text message and display text in the notice board. In this drawback is GSM bandwidth is not free thus unavailable to use so there is tower problem is occur. In our proposed system we are introducing "Voice To text apk" the android application software which would convert the voice to text. It works on all android platforms, but also it can work with a working internet. Project gives a total solution to everyone. It gives us more comfort and a better user interface later on. Students can interface with Google directly. Latest news and updates are got through the application. Notice board is primary thing in any institution/organization or public utility places like bus stations, railway stations and parks.

Keywords: Noticeboard, Android application information, message, smart phones, Arduino.

1. INTRODUCTION

As technology improves, efficient, financially affordable and highly productive output becomes an absolute necessity, and this leads us to be more inclined towards using automated control system. Human intervention, although offers variety, adaptability and interactivity could lead to error, as it is a natural and inevitable result of this variability. Hence, automation of a system is an accepted means to minimize human error and its impact. The use of cell phone has rapidly increased over the last decade and a half. Upgradation in networking technology has encouraged the development and growth of very dense network. The traditional methods of writing /typing the notice on paper, and having a man/woman deliver the notice to the respective groups, or having him/her paste the notice on the notice board, are prone to errors. In this lot of paper is been used and which is later wasted by the organizations. This in turn leads to lot of deforestation thus leading to global

warning. Our project, MultiElectronic Notice Board, aims at eliminating the use of paper in offices, schools & colleges and other institutions; also minimizing the risk of errors, by replacing paper with LED display.

The whole process can be described from the transmitter and receiver section. The WIFI module receives the message from an authorized mobile phone and the message is extracted by the microcontroller from the WIFI module and displayed on the matrix display board. This proposed system in this paper has much upcoming application in educational institution and organizations, crime prevention, traffic management, railways, advertisement etc. Being user friendly, long range and faster means of conveying information are major bolsters for this application. By using this proposed methodology we can enhance the security system and also make awareness of the emergency situation and avoid many dangers.

II.PROPOSED SYSTEM

Here the announcer/administrator may speak out the message through his/her android phone; the message is then transferred wirelessly and displayed on the screen. To demonstrate this concept we here use an LED screen to display messages. The LED is interfaced with an 8051 family microcontroller. We use a WIFI receiver to receive Android - transmitted messages, send them to the microcontroller for decode and further into the process. The microcontroller then displays the message on the LED screen. Use of this notice board system can be used in various places including railway stations, schools, colleges, offices to display emergency announcements on screen instantly, instead of typing the message at all times.

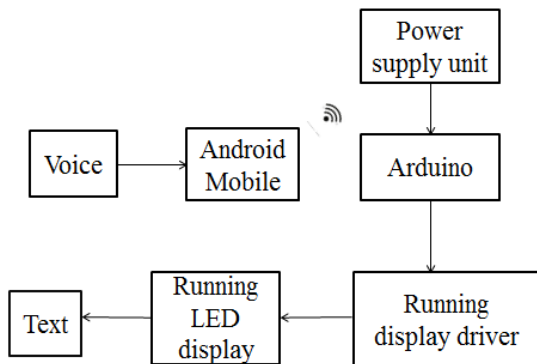


Fig.1.Block diagram of digital notice board

III. METHODOLOGY

JAVA: Java is a general purpose computer programming language that is concurrent, class- based, object-oriented and specifically designed to have as few implementation dependencies as possible, It allow the application developers to "write once, run anywhere".

ANDROID: Android is a mobile operating system developed by Google, It is used by several smart phones and tablets. Android phones typically come with built-in

application and also support third-party programs. Developers can create programs for android mobile phones using Android studio and other software's. Android programs are written in java and run through a java virtual machine JVM that is optimized for mobile devices.

IV.SIMULATION RESULT

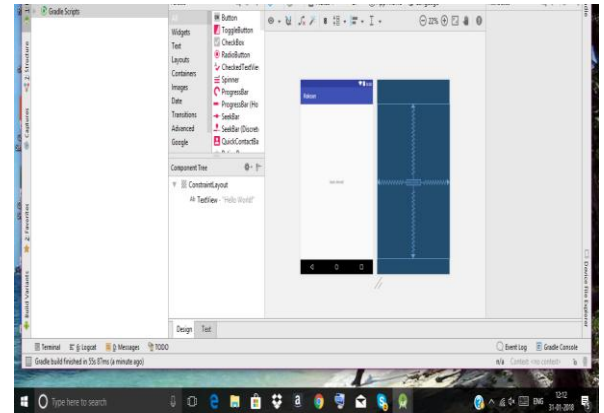


Fig.2. Preview of Android app design

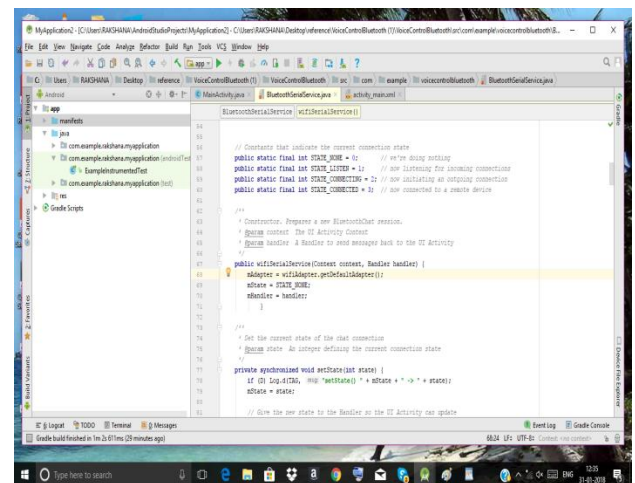


Fig.3.Layout of Android app coding

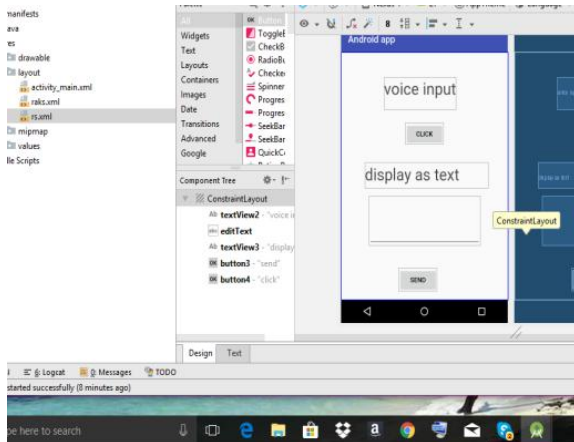


Fig 4: Layout of designing android app

ARDUINO STUDIO: It is an integrated development environment(IDE) Developed by Google that provides developers tools needed to build applications for the Android OS platform.

ARDUINO:Arduino is an open-source electronics platform and software used for programming of Arduino system. Arduino is designed to make electronics more accessible to artists,designers, hobbyists and interested in creating interactive objects or environments.

V.ADVANTAGES

- It is easy to use and easy to install.
- Speech controlled rolling display is really helpful for disabled people or handicapped people.
- It can reduce use of papers and hence deforestation can be turned into afforestation.
- It can reduce physical effort of printing and distributing paper based notices.

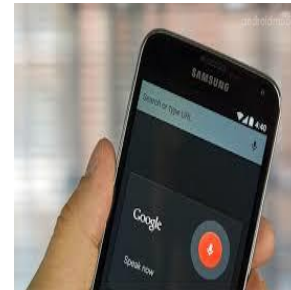


Fig 5: Hardware implementation of digital notice board

VI.CONCLUSION

By introducing the concept of this technology in the field of the communication we can make our communication more efficient and faster,with greater efficiency and faster,with greater efficiency .We can display the message with less errors and maintenance. This proposed system has many upcoming applications in educational instructions and organization, crime prevention, traffic management, railways, advertisements etc. By using this proposed methodology we can enhance the security system and also make awareness of the emergency situations and avoid many dangers.

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